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ABSTRACT

The Interstate Distributive Education Curriculum Consortium (IDECC) was used as the nucleus in a five-part project to develop competency-based instructional systems for (1) adult distributive education, (2) postsecondary education, (3) special needs (of handicapped and disadvantaged groups), (4) additional occupations (such as marketing and distribution), and (5) entrepreneurship. Through the utilization of consultants and other professionals for each specialized area of the project, competencies were identified and learning activities were developed, tested, and refined. (CSS)

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Final Report

Project No. 498AH60200
Contract No. GOO-76-05242 "B" "T"

DEVELOPMENT AND VALIDATION OF COMPETENCY BASED INSTRUCTIONAL SYSTEMS FOR ADULT, POST SECONDARY, SPECIAL NEEDS, AND ENTREPRENEURSHIP VIA THE IDECC SYSTEM

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March 1978

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PROJECT ABSTRACT

PROJECT NUMBER: 498AH60200 GRANT NUMBER: GOO-76-05242 "B""T"

PROJECT TITLE: Development and Validation of Competency Based Instructional Systems for Adult, Post Secondary, Special Needs, and Entrepreneurship Via the IDECC System.

PROJECT DIRECTOR AND ORGANIZATION: Dr. Larry Casterline, Project Director
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GRANT PERIOD: September, 1976--March, 1978

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Part I: Ervin A. Emery, Jr.
Part II: Betty H. Turner
Part III: Reginald Broadnax
Part IV: Vicki Shell
Part V: Ervin A. Emery, Jr.

OBJECTIVES:

1. To develop and validate a competency based adult distributive education instructional system using the current IDECC system as the nucleus of the project

2. To develop and validate a competency based post secondary instructional system, using the current IDECC system as the nucleus of the project.

3. To develop and validate a competency based special needs instructional system using the current IDECC system as the nucleus of the project.

4. To develop and validate competencies for new and additional occupations in marketing and distribution. As the current system is adapted to adult, post secondary and special needs, these new occupations can be implemented into the system.

5. To develop and validate a competency based learning system for entrepreneurship. The current system would serve as the nucleus of this project after task analysis.

INTRODUCTION

The attached project represents the result of efforts by four research associates and Dr. Larry Casterline, former IDECC executive director. Although Dr. Casterline resigned his position with the Interstate Distributive Education Curriculum Consortium, the completed product should be credited to his planning and organization and that of his project staff.

The project is divided into five specific parts, or objectives, and is reported in that manner. Part I, developed by Ervin A. Emery, Jr., deals with the development of an adult distributive education instructional system:

> To develop and validate a competency based adult distributive education instructional system using the current IDECC system as the nucleus of the project.

Part II, completed by Betty H. Turner, deals with the development of an instructional system for post secondary distributive education:

> To develop and validate a competency based post secondary instructional system, using the current IDECC system as the nucleus of the project

Part III represents the efforts of Reginald Broadnax in the development of a special needs instructional system:

> To develop and validate a competency based special needs instructional system using the current IDECC system as the nucleus of the project.

Part IV, completed by Vicki Shell, includes additional competency identification in four occupational clusters:

> To develop and validate competencies for new and additional occupations in marketing and distribution. As the current system is adapted to adult, post secondary and special needs, these new occupations can be implemented into the system.

Part V represents the efforts of Ervin A. Emery, Jr., in the development of a competency based system for entrepreneurship:

> To develop and validate a competency based learning system for entrepreneurship. The current system would serve as the nucleus of this project after task analysis.

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Final Report

Project No. 498AH60200
Contract No. GOO-76-05242 "B" "T"

DEVELOPMENT AND VALIDATION OF COMPETENCY BASED INSTRUCTIONAL SYSTEMS FOR ADULT, POST SECONDARY, SPECIAL NEEDS, AND ENTREPRENEURSHIP VIA THE IDECC SYSTEM

OBJECTIVE 1 (of 5): ADULT

Ervin A. Emery, Jr.
Interstate Distributive Education Curriculum Consortium

MARCH 1978

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Office of Education

ABSTRACT

DEVELOPMENT AND VALIDATION OF COMPETENCY BASED
INSTRUCTIONAL SYSTEMS FOR ADULT DISTRIBUTIVE EDUCATION

EIGHTEEN MONTHS - SEPTEMBER 1976 to MARCH 1978

OBJECTIVE: To develop and validate a competency based adult distributive education instructional system using the current IDECC system as a nucleus of the project.

PROCEDURE: A panel of consultants who represent industry and education within each of the seven IDECC business areas reviewed the current IDECC system. Educators from adult distributive education rewrote Learning Activities where needed as identified by the consultants. Rewritten adult learning activities were field tested in adult distributive education programs. Review of the field tested activities identified needed changes. Final learning activities were developed.

RESULTS: Based upon the field test of the developed adult learning activities it was demonstrated that the current IDECC system is a usable format for adult distributive education.

CONTRIBUTION TO ADULT DISTRIBUTIVE EDUCATION:

Specific adult distributive education learning activities have been written to supplement the existing IDECC system. Flexibility, offering a wide application to adult skill training, is now available to the users of the IDECC system.

Spinoff effects: core competencies identified; specific competency identification with jobs at levels--entry, step I and step II--within business areas and curriculum sections.

PREFACE

Since its beginning, IDECC has maintained that the instructional material contained within the system is usable at secondary, post secondary and adult levels of education. The focus of objective I - Adult IDECC - was to adapt the current system to provide a competency based instructional system for Adult Distributive occupations.

A panel of consultants was selected to review the IDECC material within each of the seven business areas. Within each business area the various jobs were reviewed with the needed competencies and learning activities. The consultants' general judgment was that the current IDECC system is usable at the adult distributive education level. Further, it was recommended that, when needed, new learning activities should be written.

The final outcome from the project is new Adult distributive education learning activities where needed. These new activities can be inserted into the current IDECC system. The new adult activities must be used along with the total IDECC system.

It is not possible to acknowledge all of the individuals who helped in the compilation of this material. Special mention should be made of the major contributors from both industry and education.

Industry participants :

E. U. Growden, Florida; Hotel/Motel, Ramada Inn
Jim Carver, Florida; Hotel/Motel, Ramada Inn
Esther Kissinger, Florida; Restaurant, Ramada Inn
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Robert C. Anderson, Director, St. Petersburg Vocational Technical Institute, St. Petersburg, Florida

Instructors:

Sue Fisher, Department Store, Variety Store
Louis Granado, Food Store
Carl Westbury, Hotel/Motel
John B. Gilbert, Wholesaling, Service Station

The IDECC Board of Directors and the research associate would like to give a thank you to all the above, without whose help none of this would be possible.

Admittedly, this is a bootstrap effort to start developing adult distributive education material. In no way does the research associate claim that the developed material is a comprehensive adult distributive learning system. What we have is the adaption of IDECC to adult distributive education for competency based vocational education.

INTRODUCTION

Problem

The problem addressed through objective I in the project is the development of the strategy and supportive documents and procedures to help distributive educators nationally initiate and maintain the IDECC instructional system in adult programs. The IDECC system needs to be adapted and piloted in adult distributive education, for distributive occupations. An information system needs to be developed throughout the country to disseminate this information to state staff personnel, teacher-educators and local teachers and administrators.

Overview

Distributive education had its beginning through adult programs dealing with retailing. From this beginning specialized adult programs have been continually offered, expanding all over the nation as the economy of the nation has grown. It is only natural then, that IDECC, with its competency based system, adapt current learning activities to meet this expansion in adult distributive education.

Such a need for direct adaption of the system has been expressed by the adult distributive education instructors on a national basis. The need identified centered around learning activities that could be used at the various adult levels of learning served by distributive education.

In addition to the learning activity needs there also were requests to systematize the current IDECC system based upon the businesses and job clusters within the system for the adult distributive education learner.

Specific Plan

In reviewing adult distributive education classroom methods and techniques, the assumption was made that the instructor would have the final choice as to which competencies will be used to meet the needs of the students.

Another assumption made was that the Crawford study reflected a valid process of identifying tasks and writing competencies for the seven business areas of IDECC (Variety Store, Department Store, Wholesaling, Service Station, Food Service, Hotel/Motel and Restaurant). Therefore, the current competencies were accepted without alteration. A third assumption made was that the extensive writing and field testing accomplished by the consortium members was a valid process and that the basic format of the learning activity packets (LAP's) and the material contained therein is valid. Therefore, the adaptation process used in this project for adult distributive educators centered on the following:

1. Write learning activities for adult distributive education for each business area as identified by a panel of consultants.
2. Develop a system to:
   a. Level jobs within each business
   b. Identify competencies relevant to each business currently within the IDECC system
   c. Identify "must know" competencies for each business at the various job levels (core) currently within the IDECC system

Research

Prior to the consultants' reviewing the LAP's on a business-by-business basis, it was determined that the Crawford study has leveled jobs within business areas. These leveling processes as stated in the Crawford study are Entry level, Step One and Step Two.

Further, these levels can be roughly associated with entry level jobs, supervisory level jobs and managerial level jobs. Using this information to classify jobs within each business, a computer printout was developed to identify competencies at the lowest job level, as they first enter the system within a business area. This eliminated the repetition of competencies and gave a clear understanding of where a competency belonged, based on job level, within a business area. This process further eliminated from each business area those competencies which do not pertain to the business. The results of this research delimited the Adult IDECC system to the following number of competencies per business:

Service Station:	573 competencies
Department Store:	714 competencies
Hotel/Motel:	404 competencies
Variety Store:	686 competencies
Food Store:	566 competencies
Wholesaling:	539 competencies
Restaurant:	589 competencies

It must be noted that IDECC has 983 competencies. The delimited number of competencies above draws from this base and it is not intended to say that 983 competencies are no longer needed--they are (see Appendix A).

In addition to the delimiting process above, a matrix for job levels per business was developed. From this matrix a career ladder for adult students within a business is available (see Appendix B). The career ladder approach further identified missing jobs to fill out a business area for an individual's career development. This new development is part of a current federally funded project with IDECC and the reader is advised to check on these new jobs--especially in the Department Store area--with IDECC.

To specifically identify this delimiting process, the reader may refer to the process as "The Elimination of X's" when requesting information (see Appendix C).

A further development from the elimination of X's is in the adult curriculum development area. IDECC currently has ten (10) curriculum areas (Advertising, Communications, Display, Human Relations, Mathematics, Merchandising, Product and Service Technology, Operations, Management, and Selling). It is now possible, within each curriculum section, to have the level of job and the necessary competencies for the instructional process and curriculum development available. For example: to instruct an adult program in Human Relations, say, for department store employees (specialty stores, apparel and accessories, also can use these competencies) at the entry level, those identified competencies encompassing entry level jobs are identified. This amounts to 34 competencies across all entry level department store jobs. Within the curriculum section of Human Relations, each competency is grouped under general headings to further facilitate identification of needed curriculum and to give a competency based system of instruction.

Summarizing the above research and development process, the adult distributive education instructor has available in compact form the following:

1. Competencies needed for a business area
2. Competencies needed for a specific job within a business area
3. Competencies needed for curriculum development by curriculum section related to business area and job level
4. Entry level/Supervisory level/Managerial level job identified.
5. The framework for a career ladder approach to competency based instruction by business areas

Panel Meeting - Writing of Material

Using the elimination of X's process, twenty-four consultants reviewed the total IDECC system by business areas. The concern here was to determine if the competencies identified were relevant to a particular business. After this determination, each job level within the business area was reviewed to determine if those competencies identified were, in fact, part of the job level. If the competency(s) were leveled properly they remained; if a new level--from supervisory moved up to manager level--occurred, every consultant had to agree on this change. One hold-out stopped the process. Following the leveling process of competencies to jobs (remember jobs were leveled in the Crawford study) a CORE selection of competencies was identified for each business area--based upon job level. A CORE designation to a competency follows the principal in adult education of giving the adult learner what s/he must know in order to perform the skill on the job. For a competency to be designated a CORE competency, all consultants had to agree on this designation. There is a word of caution--IDECC is not a complete body of knowledge for distributive education. To use the system as such is a mistake. Therefore, CORE competencies are not by themselves, a body of knowledge, only a designation to be used along with other needed skills. What is important here is a quick referenced help for the adult instructor to put together--matching an adult learner's needs with some specific skills available--curriculum. CORE competencies are identified on the new adult material.

The final process taken by the panel of consultants was to review each competency for its content--pre-test, posttest , behavioral objective, resources, learning manager's guide, handouts and learning

activities. It was decided,on a business-by-business basis,that learning activities adapted to adult distributive education would be the key factor in developing the adult IDECC system. Competencies which needed new activities on a business-by-business basis were identified. The type of learning activity--individual and/or group--per business area was identified. The activities written by the educators were to reflect the current pre-posttests and behavioral objectives. The writing of the activities was done away from the conference by the adult educators reflecting their classroom expertise in the adult distributive education business area they represent (see the listing of names in the PREFACE).

Field Test

The complete adult learning activities were field tested at the St. Petersburg Vocational Technical Institute, St. Petersburg, Florida, with the assistance of Mr. Gregory J. Payette, Florida Area Supervisor for Distributive Education.

All areas of the project were field tested except the restaurant business area. This was because the area comes under another vocational division through which program access was not available at the time of testing. Both teachers and students were asked to respond to the Adult IDECC system. Class size varied from six students in Food Service to 25 students in Hotel/Motel--Wholesaling enrollment was 12, Department Store and Variety Store each had 20 students,and Service Station enrolled 12 students.

Results of Field Test: Students

(A copy of the Student Questionnaire used in the study may be found in Appendix D).

The following are the percentage responses given by the students for each asked statement:

1. The directions for performing the competency were clear and easy to follow.
   yes: 90%
2. The following reading material was hard to understand.
   Directions: 30%
   Activities Sections: 10%
3. All of the learning activities for the competency were worthwhile.
   yes: 100%
4. I think this is a boring way to learn distributive education material.
   no: 75%
5. The objectives of the competency were easy to understand.
   yes: 80%
6. My attitude toward learning the material in the competencies by the competency method of instruction is favorable.
   yes: 80%
7. I learned this competency primarily through the activities of the following sections:
   individual: 60% small group: 40%
8. How much time did you spend on the competency in minutes?
   30-60 minutes: 60% 91-121 minutes: 10%
   61-90 minutes: 10% 151-180 minutes: 20%
9. Is this competency required for your career goal?
   yes: 60%
10. While learning this competency, did you learn other ideas or competencies?
    yes: 85%

It should be noted from the above that students worked on the adult IDECC program in small groups as well as individualized instruction, which points out the adult concept of facilitating communication processes between adults to enhance learning.

The above results certainly indicate a positive reaction to the newly developed Adult IDECC system from the 95 adult students using the new process and curriculum material.

Results of the Field Test: Teacher Questionnaire

Each teacher was asked to rate every competency from the adult IDECC system used with students. (See Appendix D for questionnaire.)

Reviewed competencies by business area:

Variety Store	10
Department Store	12
Food Service	10
Hotel/Motel	11
Service Station	10
Wholesaling	10

The following are the percentage responses given by the teachers for each asked statement:

1. This competency is a
   knowledge: 40%
   skill: 60%
2. The behavioral objectives are adequately stated:
   yes: 100%
3. The materials are sufficient for students to meet the criteria of the behavioral objectives.
   yes: 70%
4. The learning materials for this competency are superior to the ones I normally use.
   yes: 70%
5. The learning materials are sequenced in a manner which facilitates learning.
   yes: 70%
6. The number of learning activities included for this competency are:
   about right: 70%
7. The test questions are appropriate measures of the objectives.
   yes: 80%
8. Was at least one of the reading resources suggested available to you?
   yes: 80%
9. Were these readings resources purchased for field testing?
   N/A
10. The format of the competency made it easy to use.
    yes: 100%

11. My general attitude towards this competency is favorable.
    yes: 90%
12. School policy has hampered the implementation of the competency method of instruction in our school.
    no: 100%
13. The time required for students to master the material is less when I use the competency method than when I use my own method.
    yes: 90%
14. I prefer the competency method of instruction to the one I customarily use.
    yes: 90%
15. The post-test keys were complete.
    yes: 70%

The above field test results demonstrate a positive attitude towards the adult IDECC system by the participating teachers. The decision by the panel of consultants not to rewrite the behavioral objectives was upheld by the participating field test teachers (see question #2).

Both groups participating in the field study (Teachers, Students) further validated the panel's decision to adapt the current IDECC system to an adult approach. The additional learning activities for adult D.E. plus the current IDECC system seems to be acceptable and easily integrated into the various adult D.E. teaching formats.

Materials Needed to Implement the New Adult IDECC System

The adult distributive education instructor needs to have at his/her disposal the use of the current IDECC system to implement the new adult IDECC system. Member states of the consortium make available to each distributive education program at least one set of IDECC materials. The new adult IDECC material comes in a single package which is usable with the current IDECC competency materials. This meshing of the two curricula is quick and simple-at a reasonable cost

to the adult distributive education consortium members.

Computer printouts for the business area within which the course is to be taught are also needed. This is the leveling and competency identification process to the adult system. Steps to implement Adult IDECC:

1. Current IDECC system available
2. Package of Adult IDECC material available
3. Computer printout for each business area curriculum is to be developed within
4. Knowing the specific course to be taught, using the elimination of X's computer printout, identify the adult competencies through job or curriculum sections of the printout. Example: Human Relations Training course - level: employee - business area: department store - competencies needed: 34
5. Using the 34 identified competencies from the printout, pull each out from the Adult package and follow the directions. Notice if the competency is a CORE competency or not. Then one of two situations will occur. First: the adult material will state "Use the current IDECC system material for this competency." Second: the adult material will have the new learning activity written out plus the behavioral objective identified for the activity. Follow the new material learning activity.

The above five steps to implementation of the Adult IDECC system are rather straightforward for easy implementation. The advantage of this Adult IDECC system is easy access to instructional content. The individual adult learner can quickly identify competency needs for learning development as these needs relate to a specific job.

Additional information is available in the adult learning manager's guide (see Appendix E).

RESULTS

The end products available through adult objective #1 of this project are:

1. Adult distributive education learning activities usable through the existing IDECC system.
2. Leveled jobs within business areas.
3. Identified "Must know" competencies within business areas.
4. Framework for a career ladder in each of the seven business areas.
5. Identified competencies for each business area and job clusters within each business area.
6. A validated competency based adult distributive education instructional system using the current IDECC system as a nucleus.

CONCLUSIONS

An accomplishment from adult objective #1 of the total project is the development of an adult distributive education competency based instructional system using IDECC as the nucleus of the objective. This system was developed through the specific procedures steps noted above.

What was not undertaken in the study was a complete revision of the current IDECC system for adult distributive education use. This was based upon the following reasons. First, cost of such an undertaking was beyond this project's total budget. Second, manpower needed to rewrite each section would take a national effort involving all consortium members. Third, time to rewrite the entire system would be similar to the original process, which took two to three years--again, beyond the project's planned scope. Fourth, confusion with two different systems of IDECC usable in the classroom would be a great possibility. Fifth, realizing local adult distributive education classes are limited in budgets it was felt the insert-overview approach, reasonably priced, would facilitate use of the system.

Additional jobs within each business area were not developed through this objective. A skeleton career ladder through the leveling process was identified for each business. Within each business area there are many jobs for which a task analysis should be developed to complete the career ladder approach. Some of this is now being done with IDECC's project on Department Stores.

The adult objective of this project then, has created specific adult distributive education materials with several spinoff effects which facilitate its use.

RECOMMENDATIONS

It is recommended that further field testing be done with the material developed. This is based upon the wide variation of adult distributive education classes and the small size of the sample. It is suggested that each member state field test the material with input into IDECC for further development.

It is recommended that adult distributive education instructors have training in adult curriculum construction to implement the new IDECC adult system.

Final Report

Project No. 498AH60200
Contract No. GOO-76-05242 "B" "T"

DEVELOPMENT AND VALIDATION OF COMPETENCY BASED INSTRUCTIONAL SYSTEMS FOR ADULT, POST SECONDARY, SPECIAL NEEDS, AND ENTREPRENEURSHIP VIA THE IDECC SYSTEM

OBJECTIVE 2 (of 5): POST SECONDARY

Betty H. Turner
Interstate Distributive Education Curriculum Consortium

MARCH 1978

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

ABSTRACT

Title: Adaptation of the Interstate Distributive Education Curriculum to Post Secondary Education.

Project Duration: September 1976 - March 1978

Objective: "To develop and validate a competency based post secondary instructional system using the current IDECC system as a nucleus for the project."

Procedures:

1. Selected post secondary consultants who had experience in post secondary teaching and familiarity with the IDECC system.
2. Determined the present status of competency based instruction on the post secondary level.
3. Selected occupations which would be taught on the post secondary level.
4. Conducted a workshop for consultant review of the materials to determine needed revisions.
5. Made revisions based on review.
6. Field tested revised materials.

Contribution to Education: The final product provides materials for implementation of competency based education on the post secondary level.

Products Developed by the Project: The product developed as a result of the project consists of revised materials conducive to the post secondary level. The materials are in the form of an insert to be incorporated into the basic IDECC system, and are packaged separately from the final report.

INTRODUCTION

The objective of this project was "to develop and validate a competency based post secondary instructional system using the current IDECC system as a nucleus for the project."

The IDECC material is a system of instruction based on a task analysis completed in 1967, by Lucy Crawford. In this study, 983 competencies were identified for 76 occupations within the field of marketing and distribution. From these determined competencies, behavioral objectives were written and learning activity packages were developed to enable the student to develop the competencies needed for an occupation. The original learning activity packages were thought to be basically geared toward the secondary level. The basic assumption was made in this project that if the identified competencies are valid for secondary, then they are valid for post secondary.

With that assumption in mind, competency packages identified as supervisory and management level were revised with the objective of providing competency instructional packages for the post secondary level.

In order to achieve the above objective, competency packages were reviewed, evaluated and revised, if needed, by six consultants throughout the nation. The consultants were post secondary instructors with a knowledge of competency based education and the IDECC system.

Changes which took place in the revision of the materials were:

1. Rewriting the objectives and/or pre-test, learning activities and post test to be more suitable to post secondary instruction.
2. Combining objectives, where needed.
3. Updating or substituting post secondary resources for secondary resources.

The revised materials were sent to post secondary institutions for field testing. The product of this project will be subjected to further field testing and revision and will be an addition to the present system in the form of an insert.

Procedures

The activities for the IDECC project objective, "to develop and validate a competency based post secondary instructional system based on the IDECC system," began October 4, 1976.

Based on the guidelines established for the project, the following procedures were adhered to:

1. Selected post secondary consultants
2. Determined the state of the art
3. Determined the selection of occupations for the post secondary level
4. Conducted a workshop to review the materials to determine revisions
5. Made revisions
6. Field tested

(See Appendix F for complete breakdown on activities, schedule and flowchart.)

Post Secondary Consultants

The selection criteria for the post secondary consultants included experience as a post secondary instructor and familiarity with the IDECC system. These consultants were identified through state supervisors and the IDECC Board of Trustees. Six consultants were selected representing five states. (See Appendix G for inquiry sent to state supervisors, criteria for selection, and selected consultants.)

State of the Art

A search was conducted to determine the state of the art on competency based education on the post secondary level. Very little literature was found. Several community colleges are exploring the concept of awarding credits for already developed competencies. However, post secondary programs were not found that are basing their curriculum on identified and validated competencies for occupations.

Publishers were contacted to determine possible resources for utilization within the learning activities of the IDECC system. (See Appendix H for letter of contact.)

Selection of Post Secondary Occupations

The IDECC system consists of three levels of occupations: entry, supervisory and management. Occupations which were decided as post secondary are those which are found on the supervisory and management level. Five hundred and twenty competencies were identified as characteristic to those levels and revised for post secondary use. (See Appendix I for identification of jobs and listing of competencies.)

Review for Revision Workshop

In December, preparation began for the review workshop to be held January 17-21, 1977. The six consultants were called in to Columbus, Ohio to evaluate for each competency the (1) behavioral objectives, (2) level of learning activities, (3) resources, and (4) evaluation instrument (pre/post test). (See Appendix J for workshop agenda and evaluation form.)

At the close of the workshop each consultant was assigned the responsibility of revising approximately eighty competency packages.

Revision

For revision purposes the research associate assumed the responsibility of rewriting the objectives and updating the resources. The consultants were assigned the responsibility of recommending needed new resources and rewriting the evaluation instruments and learning activities where necessary. The consultants were provided with revision guidelines and forms for revisions. (See Appendix K.) As revisions were returned, they were retyped and sent out for field test.

Field Test

Fourteen field test sites were utilized for the 520 competency packages. The field test began in the fall of 1977 and ran to the completion date of the project. Sites were initially contacted to determine the feasibility of evaluating the materials. Each site was awarded a $5.00 credit toward the purchase of IDECC materials for each competency package tested and evaluated. (See Appendix L for initial contact letter.) Field test sites were provided with guidelines for testing and evaluation forms. (See Appendix L.)

Results

Five hundred and twenty competency packages were reviewed and needed revisions were made. The primary revisions made were the rewriting of objectives and substitution and update of resources. Other revisions include the rewrite of activities and evaluation instruments. The final product is in the form of an insert and provides a post secondary supplement to the present IDECC system. This supplement provides a system for post secondary instruction which is packaged separately from this report.

A second product of the project is a promotional brochure which can be found in Appendix M. This brochure was utilized during the life of the project to announce to post secondary educators the proposed product. The development of this product has created much interest and enthusiasm on the part of the instructors in post secondary institutions.

Conclusions

The five hundred and twenty competency packages will provide instructional materials for the development of supervisory and management level competencies. Using the insert format will permit greater versatility in the use of the materials. This format allows for the inclusion of entry level competencies which may need to be developed by post secondary students who have insufficient backgrounds to progress into the supervisory level. The format also provides lower level activities for the supervisory and management level competencies intended for secondary students. These activities may be required by those post secondary students

who are not functioning on the post secondary level but could develop needed competencies if activities are provided on a more simplistic level.

Recommendations

IDECC is in the process of revising the system. It is recommended that the revised post secondary materials be incorporated into the new activity packages and further field tested on the post secondary level.

Further studies are recommended to determine the feasibility of utilizing the competency based systematic approach in the post secondary institutions. These studies would involve determining the most realistic approach to utilizing the materials on the post secondary level.

Final Report

Project No. 498AH60200
Contract No. GOO-76-05242 "B" "T"

DEVELOPMENT AND VALIDATION OF COMPETENCY BASED INSTRUCTIONAL SYSTEMS FOR ADULT, POST SECONDARY, SPECIAL NEEDS, AND ENTREPRENEURSHIP VIA THE IDECC SYSTEM

OBJECTIVE 3 (of 5): SPECIAL NEEDS

Reginald Broadnax
Interstate Distributive Education Curriculum Consortium

MARCH 1978

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Office of Education

ABSTRACT

The title of this project is "ADVANTAGES FOR STUDENTS" - A Competency Based Instructional System for students who have "special needs," disadvantages and handicaps.

The project timeline is from September 20, 1976, to March 21, 1978.

The purpose of this project is the further development and validation of the IDECC System by identifying those competencies and learning activity packages in the system that apply to students who have disadvantages and handicaps.

The specific objective is to develop and validate a competency based "Special Needs" instructional system using the IDECC system as the nucleus of the project.

The overall plan will involve the identification of sixteen work-study or co-op coordinators, eight management level professionals, and three advisory committee members from Occupational Work Adjustment, Distributive Education, and Occupational Work Experience. These individuals will be responsible for the pilot, testing, evaluation, and revising of learning activity packages to meet the needs of students who have disadvantages and handicaps. Final format, editing and review will be completed by the research associate and examined by a committee for sex bias.

The project allows for the transferability of a competency based instructional system to meet the needs of differing populations of people. Twenty-eight consultants were trained in the use of the system and dissemination of the new system was conducted in project workshops and vocational conventions.

The product developed by the project is a set of learning activity packages that correspond to the common competencies identified in the IDECC system to meet the needs of students who have disadvantages and handicaps. The learning activity packages include pretest, learning activities, handouts, posttest, pre- and posttest keys, handout answer sheets, and learning manager guides.

PREFACE

This project is concerned with the IDECC instructional system which is in a satisfactory state, but needs revision to accommodate differing student populations. An analysis will be made of the present IDECC system and synthesis of a new system will be identified for implementation.

The curriculum of the existing system is categorized by job areas and leveled to meet the needs of vocational high school students of Distributive Education programs. The basic question of instructional consideration is, "Does the IDECC system have transferability to meet the needs of differing populations of individuals?" The criterion to be approached will focus on the adaptability of the IDECC system to meet the needs of students who have disadvantages and handicaps.

Specific objectives to be approached are:

1. An assessment of the current system
2. An assessment of method-means of evaluation of the system
3. Development of new instructional strategy
4. Implementation of the developed strategy
5. Evaluation of the new instructional system
6. Dissemination of the new instructional system

LIST OF ABBREVIATIONS AND SYMBOLS

1. IDECC — Interstate Distributive Education Curriculum Consortium
2. O.W.A. — Occupational Work Adjustment
3. D.E. — Distributive Education
4. O.W.E. — Occupational Work Experience
5. Sp. Ed. — Special Education Work Study
6. LAP's — Learning Activity Packages

INTRODUCTION

Statement of the Problem

The present IDECC system is being applied in Distributive Education classrooms specifically for use with normal, non-handicapped students. The emphasis here is that the content and applicability must be sensitized in order to relate to students of disadvantaged, handicapped, "special needs" characteristics.

This report will provide a structured approach including products and procedures for the implementation of the ADVANTAGES FOR STUDENTS instructional system. The approach will utilize the available information as gathered from literature sources as the basis of the content and strategies.

The major goal of this report is to:

Develop a "Special Needs" instructional system for use with students who have disadvantages or handicaps and are pursuing vocational careers, using the present IDECC system as the base.

The approach to be used in obtaining this goal will focus on the following objectives:

Objective:
1.0 Assessment of current system
2.0 Assessment of method-means of evaluation of the system.
3.0 Development of new instructional strategy
4.0 Implementation of new instructional strategy
5.0 Evaluation of the new instructional system.
6.0 Dissemination of the new system

REVIEW OF LITERATURE

Environmental Factors of the Present System

Vocational Education is the overriding suprasystem of this report. The Ohio State University and College of Education and Vocational Technical studies are the suprasystems. The immediate system in which IDECC facilitates is Distributive Education. The IDECC LAP's are a subsystem of D. E. Other vocational programs represented are subsystems within the Department of Vocational Technical Studies.

Figure III-1 represents the environment, at present, of the IDECC instructional system. Note that the IDECC LAP's system is positioned within the Distributive Education environment.

1.0 Assessment of Current System

The current IDECC instructional system was developed over a four year period, beginning in 1965. Lucy Crawford (Virginia Polytechnical Institute) developed a massive task-analysis study of 69 distributive occupations. Her objective was to identify the competencies, or skills and abilities, needed by an employee in each of these 69 occupations. The completed project included a list of 983 competencies required for success on the job. (See Appendix N for occupation categories.)

The study was initially started with the formulation and validation of concepts for Distributive Education and tasks needed by teacher coordinators in distributive classrooms.

Following the completion of the Crawford study, the Wisconsin Distributive Education Department began to develop a curriculum for use in their high school D. E. programs. The new curriculum was based

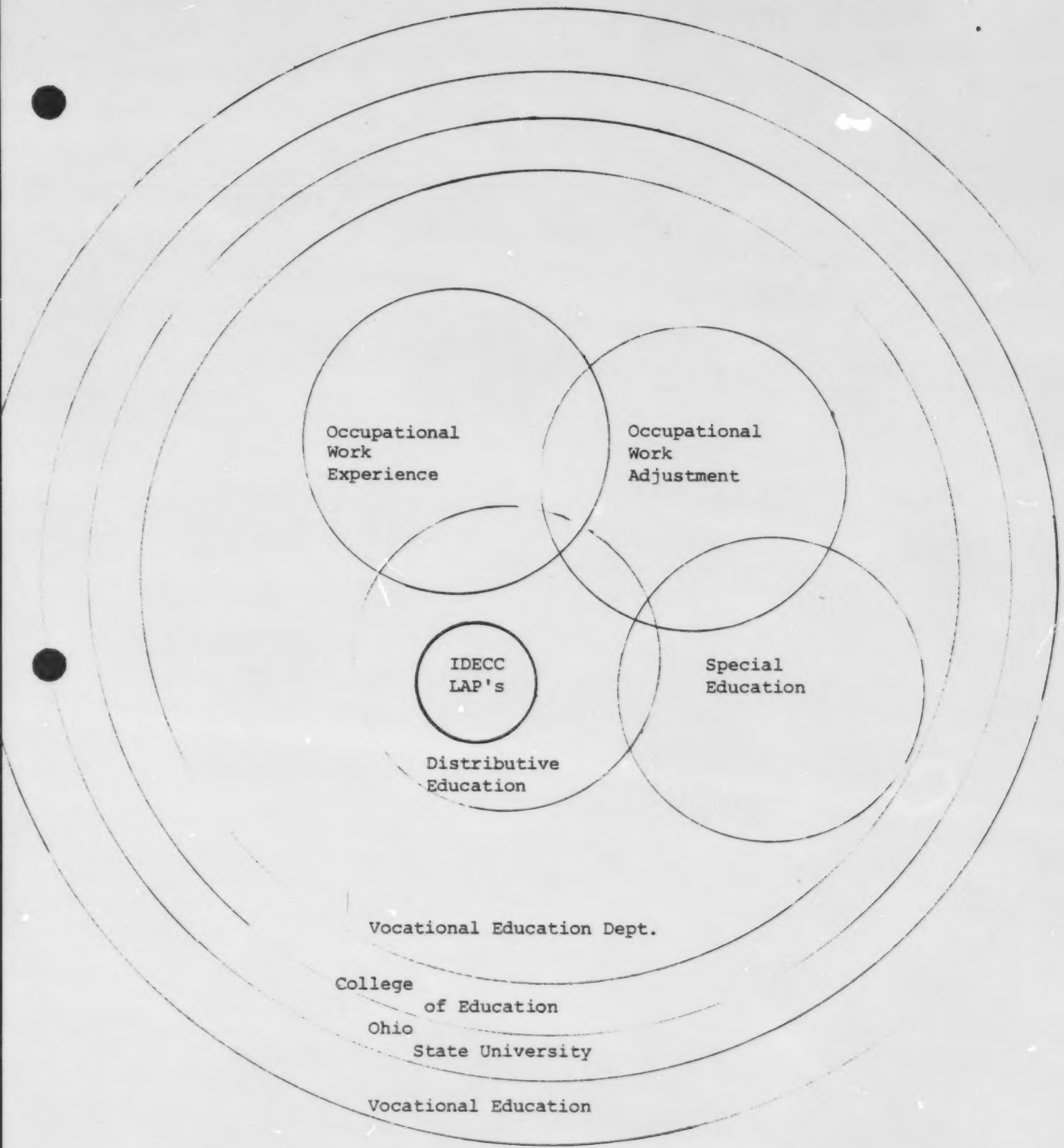


Figure III-1

Environment of IDECC System

on specific competencies identified in the Crawford study, rather than on the traditional subject matter approach (i.e. advertising, selling, etc.).

During the summer of 1970, Wisconsin coordinators wrote learning objectives for 95 of the most common competencies--a common competency being one that is found in a large number of the 69 occupations which were studied.

Further competency development resulted in the completion of 983 competencies, categorized by job, business, and curriculum categories as indicated in Appendix O.

2.0 Assessment of Method-Means of Evaluation of the System

The present IDECC system was constructed on the basis of:

1. A philosphy of distributive education.
   a. Basic beliefs concerning definitions, aims and objectives, guidance, coordination, curriculum, administration and teacher education were validated.
   b. A variation of Q-methodology was used to provide a basis for constructing the philosophy. A universe of statements of beliefs was formulated and tested in the form of a card-sort.
   c. Specific consultants were selected to perform the card-sort, and the Spearman rank order correlation was used to show validity.
2. A task analysis of high school distributive education teachers to determine competencies used in the D. E. classroom.
   a. A card-sort of basic beliefs was used.
   b. Three hour discussion periods were held.
   c. 187 critical tasks were validated by the Spearman Method. (Crawford, 1965)

The IDECC system was further develped for use in the distributive education classroom in the form of learning activity packages (LAP's). The process in which the LAP's are to be used is shown in Appendix P.

Weber constructed teacher and student evaluation instruments to assess the effectiveness and efficiency of the LAP's in the classroom. Examples of the instruments are shown in Appendix Q.

3.0 Development of New Instructional Strategy

Traditionally, Distributive Education selection criteria pinpoints the low academic, high vocation students for D. E. classrooms as illustrated by Figure III-2. (Dolnick, 1971)

Literature research of Alexander, 1976, Doverspike, 1976, Jablonsky, 1974, Lewis, 1972, and Stanley and Thomas, 1974, reveal the need for instructional systems that identify with occupational content and are sensitive enough to meet the needs of students that may have disadvantages or handicaps.

Dickson, 1973, reports positive results of a sheltered work experience centered vocational curriculum for low achieving students. Crawford, 1976, reports positive results of simulated occupational experiences of disadvantaged students in rural communities.

Morse, 1971, reports on classroom disturbances and the results of curriculum based methodology which is not fully supported by staff or management. Cochran, 1971, says, "... in order to meet the students' needs we must teach and reach the student."

One way of reaching the child is to present value related simulation activities in the classroom much as Shronk, 1972, suggests.

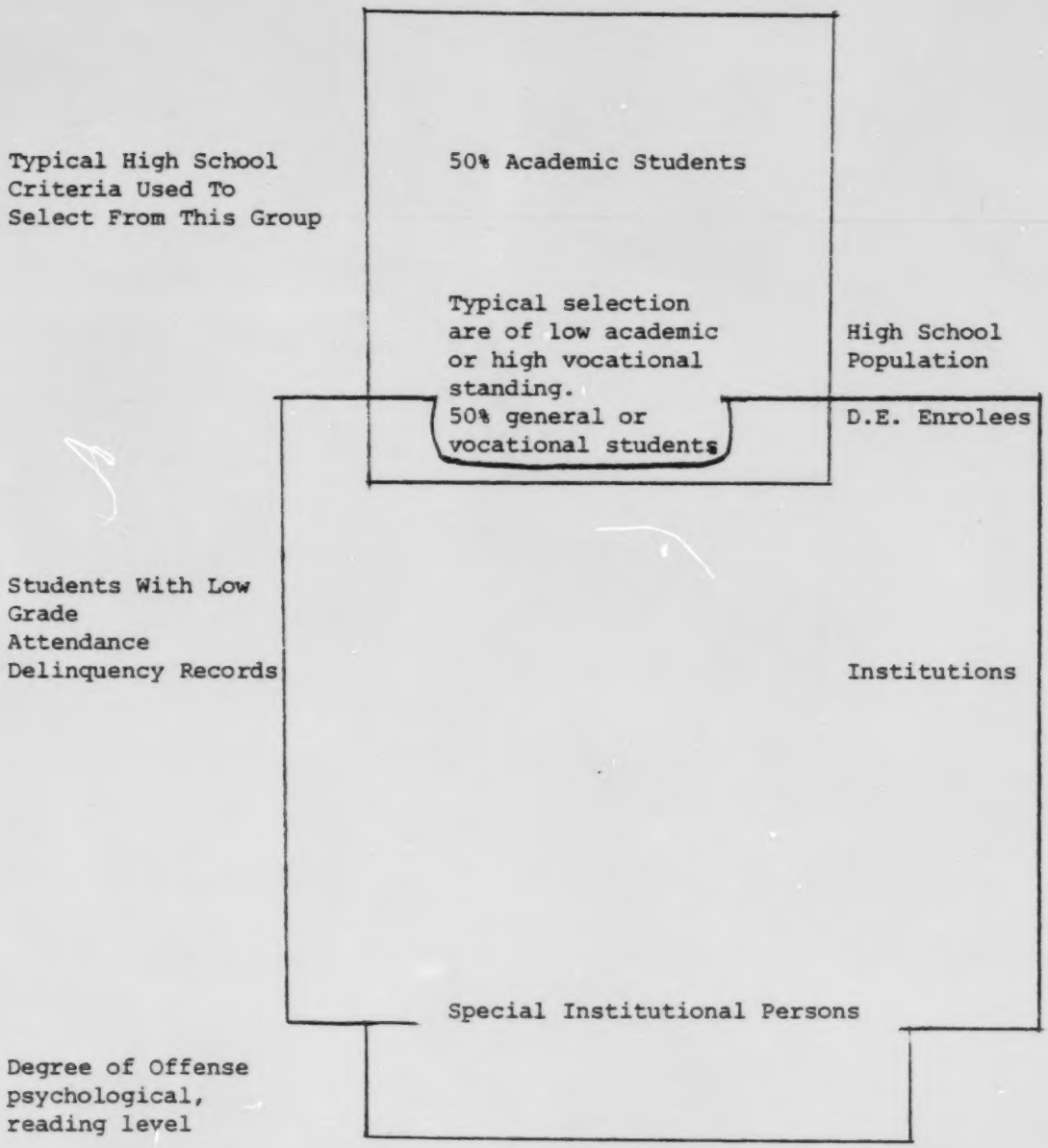


Figure III-2

Selection Criteria for D.E. Students

Behavior modification techniques which provide various methodologies in an effort to reinforce student activities in the classroom has been proposed by special educators to meet special needs of students.

Output Criteria

The existing system which relates specifically to D. E. warrants alteration on all levels of its immediate environment. Constraints to the new system can be encountered on all levels of its environment. Constraints could be:

1. Lack of acknowledgement of "special needs" students to traditional vocational curriculum or programming
2. A rigid teaching approach to classroom instruction
3. Student abilities, achievement levels, attitudes
4. Family and community acceptance
5. Separate inservices, pre-service

The alterations should be in the form of the following to meet the needs of students with disadvantages and handicaps:

1. Definition of concept area and identification of populations
2. Relativity to disadvantaged and handicapped populations
3. Competency development towards obtaining of jobs
4. Development of format
5. Reduction of reading level
6. Feasibility toward mainstreaming

METHODS AND PROCEDURES

4.0 Implementation of the New Instructional System

A panel of eight supervisory consultants were identified from four different co-op and work study areas (O.W.A., D.E., O.W.E., Sp. Ed.) to identify and develop specific concepts and definitions which apply to students who have disadvantages and handicaps. (See Appendix R.)

The plan was to have the consultants meet for four days to develop the needed terminology and format of the new instructional system. These individuals had also assisted in the identification of

four teacher consultants each from their areas to spend two days in orientation to the IDECC system, evaluation of the IDECC system, and in discussing the piloting of the system.

Three advisory personnel from the four areas met before the management and teacher consultants to decide on the proper evaluation instrument to use in piloting the IDECC LAP's and to review the common competencies which had been chosen by the research associate as the basis for the "Special Needs" instructional system.

The sixteen teacher consultants were given the learning activity packages that were identified as common competencies in which there were 163 based on 17 entry level occupations. (See Appendix S.) Each consultant was responsible for revision, expansion, piloting and providing suggestions for ten of the total competencies. An evaluation instrument was adapted from the Weber evaluation model for use in piloting the new system. (See Appendix T)

Supervisory consultants were responsible for coordination of the teacher activities on a local level.

The consultants attended two follow-up workshops for the purpose of collection of completed LAP's, discussion of problem areas, dissemination of professional information relevant to the project and their programs and project modifications.

The procedures used in the revision and expansion of the IDECC system provide for an interdisciplinary approach to developing curriculum materials. The combining of special education work study and vocational education programs in an effort to develop materials to meet the needs of differing populations of individuals provides for the feasibility of mainstreaming, promotes professionalism,and includes multi-options.

The environment of the new system will change in that there will be a process of sharing instructional programs and transferability of students in vocational programs, as indicated in Figure III-3.

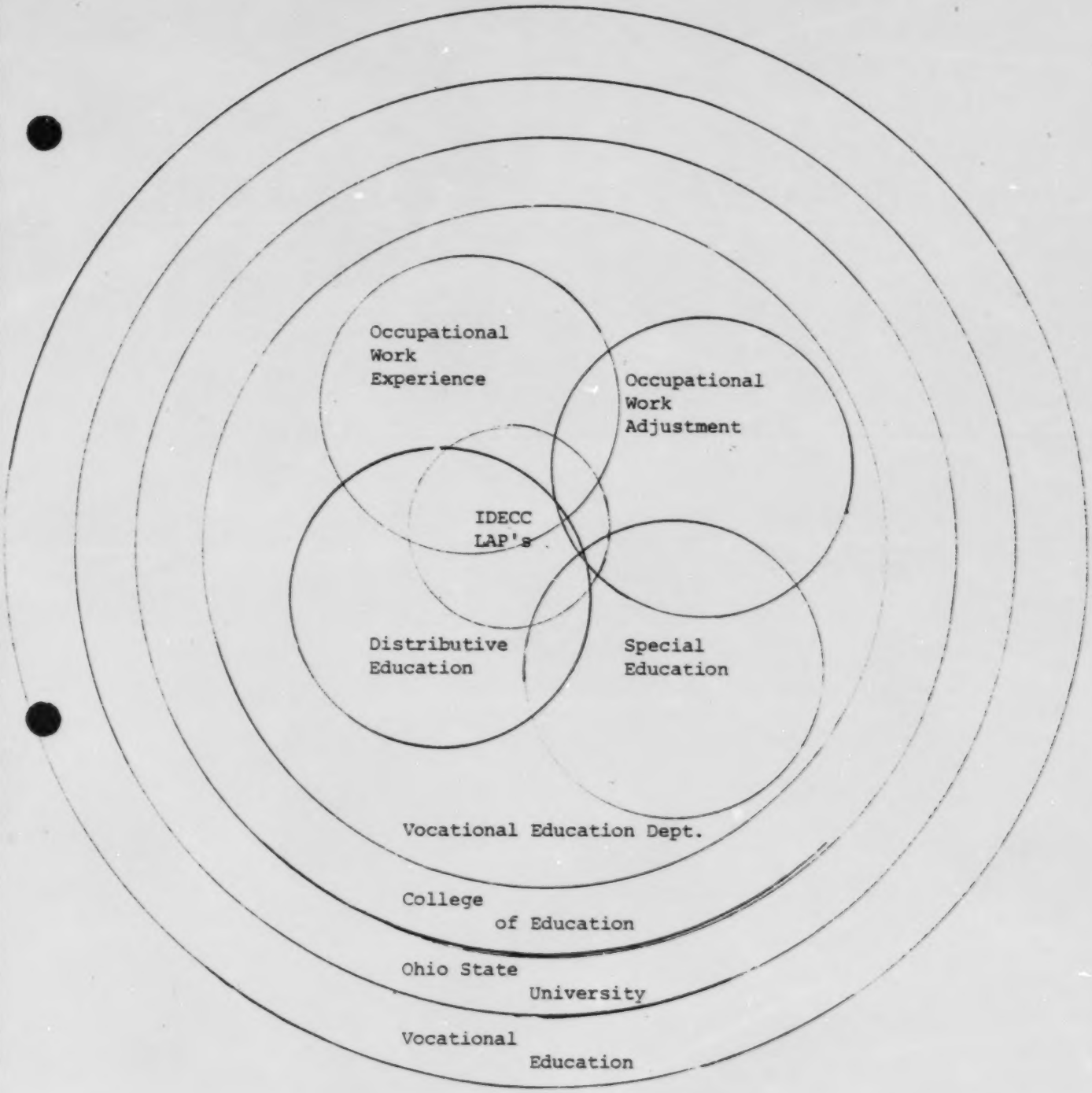


Figure III-3

Future Environment of the IDECC System

RESULTS

5.0 Evaluation of the New Instructional System

The new instructional system is more concise than the regular IDECC system. More concise because:

1. Format Has Been Changed
   A. Each competency is a learning package
   B. Format is:

Student Package	Page 1:	Cover (entry-level job) (See Appendix U.)
	Page 2:	Entry Level - Occupational View (See Appendix U.)
	Page 3:	Pretest
Divider Sheet		
Learning Manager	Page 4:	Activity Sheet
	Page 5:	Handout Sheets
	Page 6:	Posttest
	Page 7:	Pretest Key
	Page 8:	Handout Answer Sheets
	Page 9:	Posttest Key
	Page 10:	Learning Manager's Guide

2. Reading Level Reduced (3-6 grade) (See Bibliography for reading indexes.)

3. Bibliography of 187 Businesses, Agencies, and Curriculum Programs with Information to Provide, Resources, and Services. (See Appendix V.)

4. Identifies The Specific Concept Area in Which Each Learning Activity Package Espouses. (Academic/Social/Cultural/Economic/Self-Concept)

The new instructional system is easier to manage.

5. The system:

   a. Is a smaller package
   b. Contains separate learning manager and student section
   c. Identifies specific entry level occupations
   d. Specifies identification of students' Attitudes Toward Work as well as their vocational objectives. (See Appendix W.)
   e. Is based on common competencies which allows for more instructional flexibility.

The new instructional system can be used by all students.

6. The system is:

   a. Free of sex-bias
   b. Relative to differing populations of students/ business areas/curriculum areas. (See Appendix S.)

CONCLUSIONS

The completed "special needs" instructional system has been constructed using the IDECC system as its base. The system, although a unit in itself, will be added to the present IDECC system for upgrading purposes. The transferable qualities of the new system allows it to follow the same sequence of events to be used in the classroom. Appendix X illustrates the Procedural Flowchart.

Implications of the System

A. Educational implications of the "special needs" instructional project could allow for:
   1. Decrease in student failure
   2. Turned on students
   3. Increased learning time
   4. Structured knowledge and understanding
   5. Variety of opportunities available
   6. Obtainment of jobs
   7. Creativity
   8. Positive self images
   9. Increased responsibility
   10. Positive reinforcement

B. Mainstreaming of:
   1. Student populations
   2. Teacher pre-service across areas of education
   3. Teacher inservice across areas of education

C. Community Involvement
   1. Family awareness
   2. Problem identification

D. Implementation of the system can occur because it:
   1. Is a total instructional system
   2. Maintains supportive reference sources
   3. Can be used directly or as a curriculum source

6.0 Dissemination of the New System

The "Special Needs" instructional system "ADVANTAGES FOR STUDENTS" is complete and has been advertised in workshops, conventions, and by mailing procedures. Further dissemination will be left to the discretion of the IDECC Board.

RECOMMENDATIONS

Evidence has been recorded in this report which supports the need for the "ADVANTAGES FOR STUDENTS" system. Suggestions for proper implementation of the system are as follow:

A. Determine student needs by assessing:
   1. Student Attitudes Toward Work (The Broadnax - Attitude Toward Work scale has been validated to give a quick check of student attitudes. (See Appendix W.)
   2. Student academic and aptitude levels by using norm reference criterion test
   3. Students' responsible choice of occupational pursuit
   4. Student backgrounds for potential barriers

B. Provide the proper environment for student success:
   1. Remediation
   2. Rehabilitation
   3. Medicalization
   4. Counseling
   5. Reinforcement
   6. Curriculum support
   7. Equipment and facilities

C. Maintain professional awareness
   1. Attend workshops, school
   2. Be active in work related projects
   3. Acquire certification

D. Be committed to the cause - THE EDUCATION OF THE STUDENT

The "ADVANTAGES FOR STUDENTS" system is not a catch-all system and, therefore, cannot solve each and every problem that may arise in the classroom with students who have disadvantages and handicaps, but to those who even in 1978 still cling to one-sided points of view when it comes to implementation of specific educational technology, the author must state that is best that their eyes are open, for the potential to provide for student success lies with those who do not procrastinate.

ILLUSTRATION 1

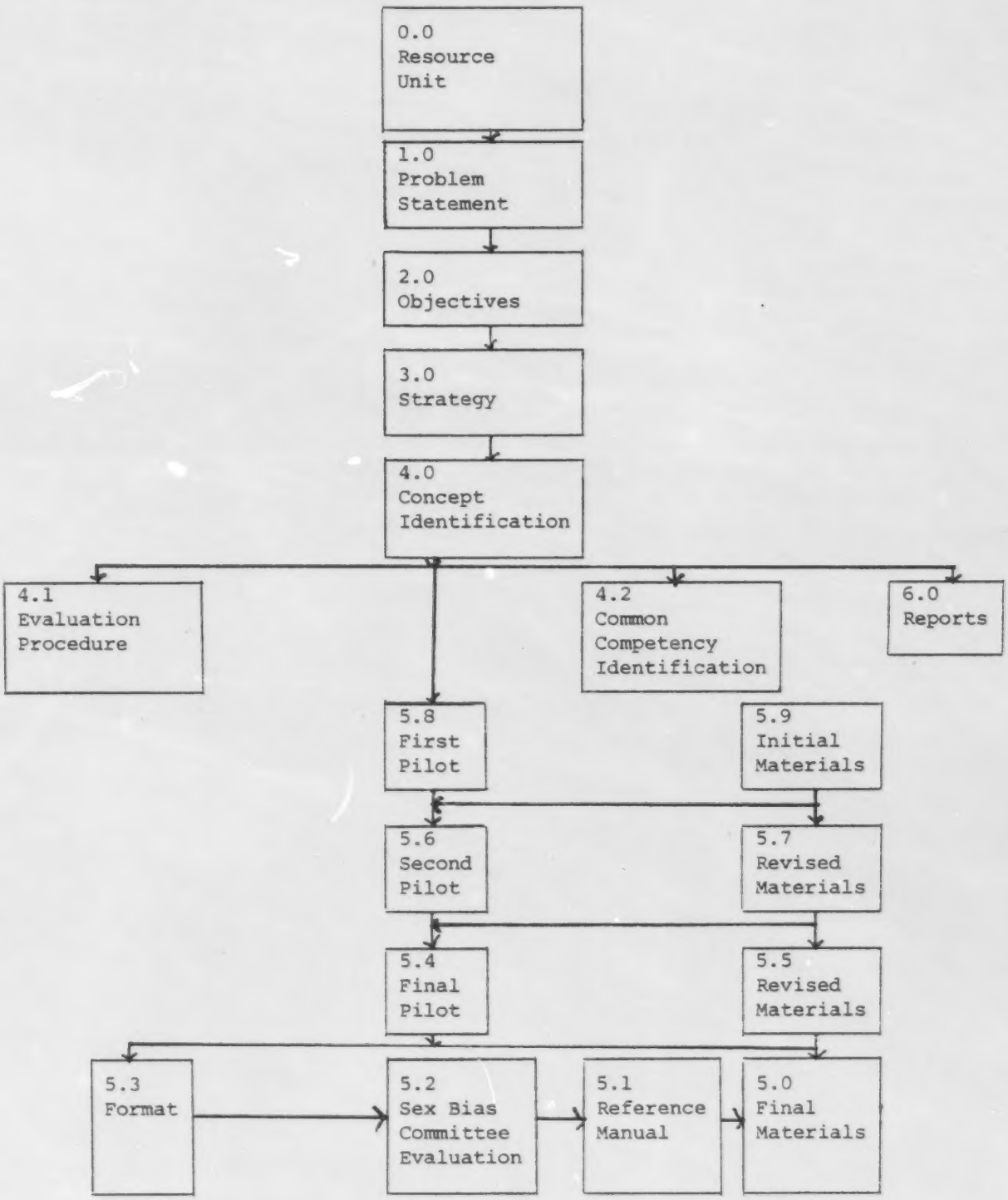
The Tabular Work Breakdown structure for the "Special Needs" instructional project is as follows:

Level 0	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Research Unit Research	Problem Statement	Objectives	Strategy	Concept Identification	Final Materials	Reports
				Evaluation Procedure	Reference Manual	
				Common Competency Identification	Sex Bias Committee Evaluation	
					Format	
					Pilot	
					Revised Materials	
					Pilot	
					Revised Materials	
					Pilot	
					Initial Materials	

Tabular Work Breakdown Structure

ILLUSTRATION 2

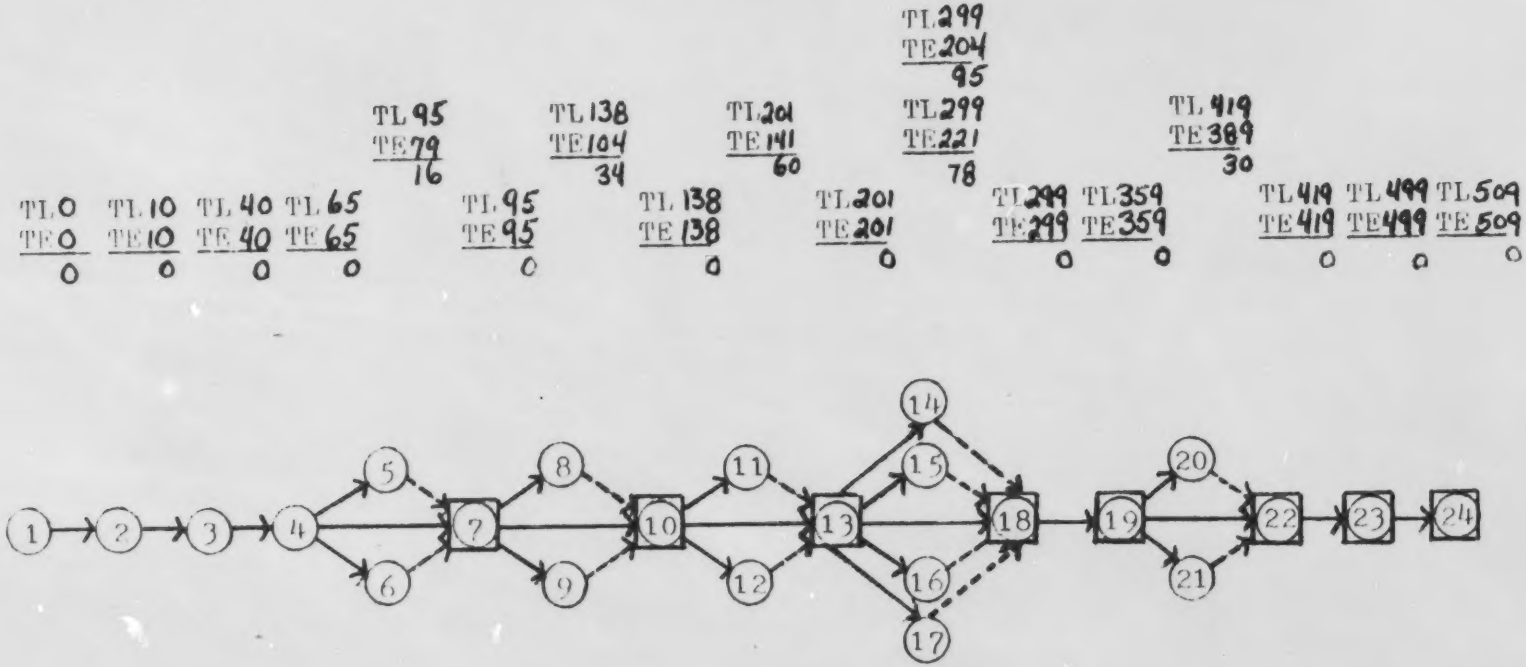
The specific work flow plan is as follows:



Specific Work Flow Plan

ILLUSTRATION 3

NETWORKING SYSTEM FOR "SPECIAL NEEDS" INSTRUCTIONAL SYSTEM



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NETWORKING SYSTEM

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ILLUSTRATION 4

The specific project timeline is as follows:

Sept. 20, 1976	1.	Start project
	2.	Complete problem statement
	3.	Complete objectives
	4.	Complete strategy
	5.	Complete concept identification
	6.	Complete evaluation procedure
	7.	Complete common competency identification
Dec. 13-19	8.	Complete orientation inservice
	9.	Complete initial materials
	10.	Complete first pilot
Feb. 4-6, 1977	11.	Complete revision inservice
	12.	Complete revised materials
	13.	Complete second pilot
April 8-10	14.	Complete final inservice
	15.	Complete revised materials
	16.	Complete final pilot
	17.	Complete format
	18.	Complete reference contacts
	19.	Complete sex bias committee evaluation
	20.	Complete reference manual
	21.	Complete final materials
	22.	Complete reports
	23.	Complete dissemination
March 1, 1978	24.	Complete project

Project Timeline

Final Report

Project No. 498AH60200
Contract No. GOO-76-05242 "B" "T"

DEVELOPMENT AND VALIDATION OF COMPETENCY BASED INSTRUCTIONAL SYSTEMS FOR ADULT, POST SECONDARY, SPECIAL NEEDS AND ENTREPRENEURSHIP VIA THE IDECC SYSTEM

OBJECTIVE 4 (of 5): ADDITIONAL OCCUPATIONS

Vicki Shell
Interstate Distributive Education Curriculum Consortium

MARCH 1978

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Office of Education

A B S T R A C T

Title of Project:	Expansion of IDECC System Through Task Inventory
Project Director:	Dr. Larry Casterline
Research Associate:	Vicki E. Shell
Applicant Organization:	Interstate Distributive Education Curriculum Consortium (IDECC)
Beginning and Ending Dates:	September 20, 1976 - March 20, 1978
Objective:	Expand the IDECC System through task inventory in the occupational areas of Insurance, Real Estate, Finance and Credit and Transportation.
Procedures:	1. Select jobs 2. Conduct task analysis 3. Write competencies 4. Disseminate product
Contribution to Education:	The final product of this project is a list of competencies that have been obtained through validation of tasks and the actual competencies. From these lists, additional curriculum material can be added to the IDECC System; thus providing Distributive Education with a broader career base.

Synopsis of the Project

The movement in the last few years toward competency based education has contributed to more sophisticated curriculum making in vocational education. This has helped to move teaching from an art toward a technology. This movement has provided the basis for systematically making decisions concerning strategies, learning activities and evaluation. The development of instructional systems has provided the basis for vocational education to demonstrate accountability in curriculum decisions. Instructional strategies can be implemented to provide students with the skills, knowledges, and attitudes needed to succeed in their chosen occupational area.

One of the original research studies done in competency based instructional systems for distributive education was by Lucy Crawford in 1968 entitled "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education". In 1971, an eleven-state consortium was formed to develop an instructional system based on the Crawford study for high school distributive education programs. This was first known as LAPS (Learning Activity Packages) and later as IDECC (Interstate Distributive Education Curriculum Consortium).

The focus of this project was curriculum development and the validation of the IDECC competency based instructional system. Even though IDECC primarily relates to distributive occupations, the system does have transferability to other vocational areas. This project was designed to expand the current system by task inventory of new and additional occupations.

This project dealt specifically with four sub-clusters of the United States Office of Education taxonomy for Distributive Education--Real Estate, Insurance, Finance and Credit, and Transportation of Tangible Products. In each of the four sub-clusters, individual entry level jobs were identified by business people in that area. After that job was selected, two career steps were chosen. One was the career level, and one was the specialist level. A possible third level could be the entrepreneurship level. The jobs for the real estate area were: salesperson and broker. The jobs for the insurance area were: personal lines rate clerk, assistant underwriter, and underwriter. The jobs for banking were: teller, staff assistant, branch manager, and vice president. The jobs chosen for motor carrier terminals were: dispatcher, dock supervisor, terminal manager and vice president--terminal operations.

After the jobs were identified, a preliminary task list was prepared. The business people then met and adopted the final task lists. When the lists were refined, the survey instrument was prepared.

The actual collection of the data was determined through personal interviews conducted by people identified by the research associate. The interviews were conducted in one state in most of the ten U.S.O.E. regions, with six employees and five supervisors surveyed in each state.

When the personal interviews were completed, the data was tabulated. The computer was used for this process.

Next, the data was analyzed to determine the valid tasks. From these tasks, competencies were written. The level and the domain were considered during this phase.

A review panel was called in to check the competencies for clarity, conciseness and appropriateness. This panel was made up of at least one business person from that business area, and one educator.

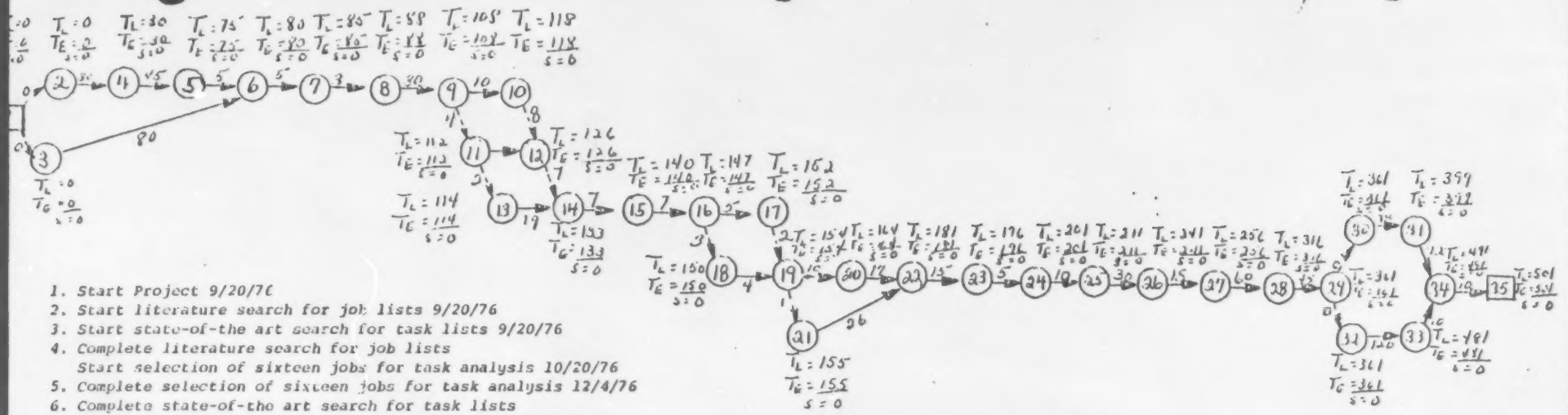
As the competency validation process was finished, the final competency lists were prepared.

Consultants participating in the study are identified in Appendix JJ.

Work Flow

As this project was research and development related, it could probably be considered probabilistic. With this in mind, a network could represent the work flow better. The Program Evaluation Review Techniques (PERT) was chosen to present the network for this project. Since PERT is event-oriented the node is the event and the arc is the activity. The network is basically a linear one due to the fact that one person is responsible for the activities to be conducted.

PERT CHART - OBJECTIVE #4 - OCCUPATIONAL ANALYSIS



1. Start Project 9/20/76
2. Start literature search for job lists 9/20/76
3. Start state-of-the art search for task lists 9/20/76
4. Complete literature search for job lists
   Start selection of sixteen jobs for task analysis 10/20/76
5. Complete selection of sixteen jobs for task analysis 12/4/76
6. Complete state-of-the art search for task lists
   Start personal interviews for additional tasks 12/9/76
7. Complete personal interviews for additional tasks
   Start formulating preliminary task lists 12/14/76
8. Complete formulating preliminary task lists
   Start review committee meetings 12/17/76
9. Complete review committee meetings
   Start revision of task list 1/16/77
10. Complete revision of task test 1/26/77
11. Start development of tabulation procedure 1/20/77
12. Complete development of tabulation procedure 2/3/77
13. Start development of survey instrument 1/22/77
14. Start field test of survey instrument 2/10/77
15. Complete field test of survey instrument 2/17/77
16. Complete development of survey instrument
    Start selection of contact people 2/24/77
17. Complete selection of contact people 3/1/77
18. Start distribution of survey instrument to contact people 2/27/77
19. Complete distribution of survey instrument to contact people
    Start identification of practioneers 3/3/77
20. Complete identification of practioneers 3/13/77
21. Start personal interviews 3/4/77
22. Complete personal interviews
    Start receiving survey data
    Start tabulating data
    Start follow-up 3/30/77
23. Complete receipt of data 4/15/77
24. Complete follow-up 4/20/77
25. Complete tabulation of data
    Start analyzing data 4/30/77
26. Complete analyzing data
    Start developing valid task lists 5/30/77
27. Complete devolopment of valid task lists
    Start writing preliminary competencies 6/15/77
28. Complete writing preliminary competencies
    Start second review committee meetings 8/15/77
29. Complete review committee meetings
    Start revision of competencies 11/1/77
30. Start AVA presentation 11/1/77
31. Complete AVA presentation 12/6/77
32. Start writing article for publication 11/1/77
33. Complete writing article for publication 3/1/78
34. Complete revision of competencies 3/10/78
35. Complete project 3/20/78

VS:eeh
11/9/76

Figure IV-1

PERT Chart--Objective #4--Occupational Analysis

The following steps were used to complete Objective #4:

1. Determine jobs
   A. Use compiled job lists
   B. Use Delphi mailing

2. Prepare preliminary task list for each job
   A. Have each member of review committee prepare and mail in their list before meeting
   B. Hold meeting and develop task lists

3. Develop survey instrument
   A. Determine scale for measuring tasks
   B. Write cover letter and demographic section
   C. Arrange task section
   D. Field test survey instruments

4. Collect data
   A. Write description of type of business, employee and supervisor wanted for survey
   B. Identify key or contact person in at least five states, and in possibly each of the ten U.S.O.E. regions
   C. Send out surveys and conduct personal interviews

5. Tabulate data
   A. Record survey results as material is returned
   B. Compute necessary statistical information

6. Analyze data
   A. Arrange data in meaningful form
   B. Determine acceptable tasks

7. Develop competencies
   A. Write preliminary competency list from validated tasks
   B. Hold review meetings of one business person and one education person for each sub-cluster. Each group validate competencies and offer a sequence, if any
   C. Revise competencies

8. Disseminate product
   A. Prepare presentation for AVA
   B. Write article suitable for publication
   C. Prepare final competency list

A brief explanation of each step describes the procedures used in this objective.

Determine Jobs

The four major areas of Finance and Credit, Transportation, Real Estate and Insurance were identified in the proposal for the project. In order to determine individual jobs within each area, labor statistics, enrollment figures and DECA involvement was considered.

After the initial areas of interest were established, advisory committees for each area were formed. A copy of the letter sent is in Appendix AA. A list of jobs as then prepared to endeavor to list all possible entry level jobs in each area. These listings are in Appendix BB.

Next, mailings were sent to each Advisory Committee member asking for each person to identify the four most representative entry level jobs for that area. The next mailing asked for the two most representative jobs. The next mailing asked for the most representative job and then the next mailing requested career steps. The mailings are included in Appendix CC. by the four areas.

Prepare Preliminary Task Lists

Advisory Committees then worked on determining the tasks performed by the workers in each of the areas. A module (Appendix DD) was given each of the Advisory Committee members to aid in writing task statements. The notification memo, agenda and follow-up letter for the meeting are in Appendix EE. Job descriptions and task listings for each job were developed.

After the Advisory Committees returned the task lists, revisions were made and the revised lists were sent back to the members for their input. Then, a final list was devised for survey purposes.

Develop Survey Instrument

After reviewing various task inventory procedures, it was decided to adopt the Center for Vocational Education's task inventory process. Two worker booklets would be used with one supervisor booklet. Worker I would be asked if that task was performed and how often it was performed. Worker II was asked how important a part of the job was that task. The Supervisor was asked if the worker performed the task and where the training for that task should take place.

The booklets were arranged by curriculum areas and were sent to the advisory committees for field testing in their business areas. The booklets were returned and the final booklets were prepared. A sample task booklet and job description are in included in Appendix FF. Human Subjects clearance was obtained through The Ohio State University. A copy of the clearance form is in Appendix GG.

Collect Data

Instructions were written for each occupational area. A sample is in Appendix HH. When the surveys were ready for distribution, a cover memo and work sheet were sent with the surveys. These are also in Appendix HH. An individual from ten randomly selected states was chosen to be the key contact person. The states were:

Connecticut
Pennsylvania
Alabama
Missouri
Wisconsin
Oklahoma
Colorado
Arizona
Washington

Due to various curcumstances New York and Arizona were unable to participate in the surveying.

Each state key person identified various persons within the state to assist in the surveying. Letters were then sent to these people explaining the project and asking for their help in completing the surveying. Two sample letters are also included in Appendix HH. Then the surveys were mailed. Follow-up letters and post cards were sent to those non-respondents. Samples of two post cards are in Appendix HH, also. Telephone calls were also used to contact persons doing the surveying that had not responded.

Tabulate Data

As the surveys were returned, they were coded and key punched onto cards. Thank you letters and certificates were sent to each person that conducted the surveying. Then, the entire information for each job was run on the computer. The procedures were those recommended in Volume V of Performance Content for Job Training from the Vocational Center.

Analyze Data

The tasks were reviewed for the number of workers and supervisors that state the task is performed. The importance of the task and the location of the training for the task were also evaluated. After this analysis, lists of tasks were formed that were appropriate for training for that job. Printout information for each job is included in Appendix II.

Develop Competencies

From the appropriate task lists preliminary competency lists were written. It was an effort of the writer not to make the competencies too specific. Each Advisory Committee then reviewed the Competency lists and revisions were made.

Disseminate Product

A presentation was made at the IDECC Consortium Meeting and the Council for Distributive Teacher Education Meeting at 1977 American Vocational Association conference concerning this project. An article was written for the Ohio Realtor which can be found in Appendix KK.

Results

Thirteen additional jobs now have identified taks that are necessary for successful performance on each job. These tasks can now be used to assist students interested in those occupational areas.

Conclusions

For those persons choosing bank teller, bank staff assistants, bank branch manager, bank vice president, real estate salesperson, real estate broker, insurance personal lines rate clerk, insurance assistant underwriter, insurance underwriter, motor carrier dispatcher, motor carrier terminal manager, motor carrier vice president; there will be information available to aid them in preparing for the above jobs.

Recommendations

Additional research should be conducted to cover the other occupational areas not presently included in the IDECC system. Also, research of each of the occupational areas of banking, real estate, insurance, and transportation should be expanded to include a comprehensive offering in each area.

Final Report

Project No. 498AH60200
Contract No. GOO-76-05242 "B" "T"

DEVELOPMENT AND VALIDATION OF COMPETENCY BASED INSTRUCTIONAL SYSTEMS FOR ADULT, POST SECONDARY, SPECIAL NEEDS AND ENTREPRENEURSHIP VIA THE IDECC SYSTEM

OBJECTIVE 5 (of 5): ENTREPRENEURSHIP

Ervin A. Emery, Jr.
Interstate Distributive Education Curriculum Consortium

MARCH 1978

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Office of Education

ABSTRACT

Purpose

The purpose of the entrepreneur portion of the project is the further development and validation of the IDECC system in the area of entrepreneurship.

Objective

To develop and validate a competency based learning system for entrepreneurship. The current IDECC system would serve as the nucleus of this project after task analysis.

Methodology

Using a panel of consultants that are entrepreneurs, a list of duties and tasks performed by an entrepreneur was developed. From this task list a national survey was conducted for validating the tasks list on the basis of criticality and frequency. The validated tasks were developed into competency statements. Behavioral objectives, learning activities, pre-post tests and handouts were developed for a learning situation in entrepreneurship. The current IDECC system is the nucleus through which the additional learning activities are usable.

Results

The existence of an entrepreneur identified body of knowledge available through IDECC.

The identification of current IDECC competencies usable in entrepreneur learning situations.

Conclusions

The accomplishment of this objective is the development of an entrepreneur program using the IDECC system.

PREFACE

This research on entrepreneurship is unusual in many respects. First, it is the deliberate attempt to reduce entrepreneurship to a list of tasks--tasks which reflect specific skills needed to perform within the concept of entrepreneurship.

Second, this research on entrepreneurship performed a single task analysis process which by itself was to bring together needed skill knowledge.

Third, this research on entrepreneurship evolved competency statements from the validated task lists centered on three areas of competency construction--knowledge, skill, and attitudes--using skills as the basis.

Fourth, this research on entrepreneurship is adaptable to any learning situation where entrepreneurship concerns itself as a body of knowledge. Competencies by themselves stand alone.

Fifth, the entrepreneurship phase of the total project brought out many new questions which were addressed, and as yet answers are to be fully developed. The above five unique statements highlight these unusual aspects of the project. It is not the intent of the project to develop fully the research behind the various unusual situations presented above. However, the reader of this report must remember that a bootstrap effort was attempted, issues were raised and a direction taken. The end product of this direction is the development of an entrepreneurship body of knowledge, based upon a task analysis process.

Assumptions made concerning the entrepreneur project were:

1. Entrepreneurial skills are general in nature. That is, entrepreneurial skills are usable in all businesses.

2. Technical skills needed for a given business area can be bought through the hiring of personnel.

3. The current IDECC system, through the Crawford study of managerial tasks, does contain competencies usable by entrepreneurs. (See Appendix UU.)

Finally, the Interstate Distributive Education Curriculum Consortium would like to recognize and thank those people who wrote the various entrepreneur learning activities.

Writers of the Material:

Mr. Bob Cole
Mr. Jerry Garman
Mr. Steve Miller
Ms. Lisa Perrin

Each one of these writers currently conducts workshops in entrepreneurship.

INTRODUCTION

The entrepreneur project is part five of a federally funded project number, Ohio, 498AH60200, contract number G00-76-05242, "B" "T": The Ohio State University, 119 Townshend Hall, 1885 Neil Avenue, Columbus, Ohio, 43210, phone (614) 422-4202. The title of the overall project is Development and Validation of Competency Based Instruction Systems for Adult, Postsecondary, Special Needs and Entrepreneurship via the IDECC System. The time period for the project is 9-01-76 to 3-21-78.

Purpose of the Entrepreneur Project. The purpose of this phase of the project is the further development and validation of the IDECC system. Using the current IDECC system as the nucleus, this project will develop and validate a competency based learning system for entrepreneurship.

Need Rationale for the Entrepreneur Project. The great expansion of vocational education at the postsecondary level over the past decade has encountered myriad needs for better knowledge and more effective means of identifying relevant needs of individuals and society, formulating and implementing responsive policies and plans, and developing and evaluating effective "delivery" systems and components. The issues and the problems, and the needed research, applied studies and development projects are of major national and regional, as well as state and local, significance. Federal legislation, including federal vocational education legislation and recent legislative activities of many states, evidence the public's recognition of both the operational and the research and development needs of post-secondary vocational education as a vital area for priority attention.

As a result of these kinds of needs, the U.S. Commissioner of Education concluded that postsecondary vocational education would be one of the areas of priority concern in the Vocational Education Research Program for FY-1976. The specific area of Vocational Education in entrepreneurship as a priority concern announced in the Federal Register states: "There is a need to expand vocational education programs to provide adults entrepreneurial competencies which facilitate self-employment. Applications should propose the development of instructional or curriculum materials for use in open-entry and open-exit programs." The IDECC system of competency based instruction fills this model at all levels of education. Therefore, this contract was awarded to IDECC for the inclusion of entrepreneurial competencies. This report describes the processes used for the IDECC entrepreneurial project.

ENTREPRENEURSHIP--Objective #5--IDECC

Objective. To develop and validate a competency based learning system for entrepreneurship. The current IDECC system would serve as a nucleus of this project.

Specific Plan. The specific plan for the competency based entrepreneurship instructional system starts with a task analysis and a comparison of the resulting competencies with those in the IDECC system.

The first activity was to have a panel of ten entrepreneurs develop a comprehensive list of duties and tasks that they perform. The panel's list was refined and combined with statements developed to be included on a questionnaire. (See Appendix LL .)

The questionnaire was distributed to a large group of entrepreneurs throughout the United States (Ohio, Florida, Pennsylvania, Wisconsin, Illinois, and Oklahoma). They were asked to identify those tasks that they actually performed and the amount of time spent on these tasks. In other words, how critical is the task to the entrepreneur, and how frequently was the task performed? The next step was the tabulation and analysis of the summary statistics. Those tasks determined to be valid were written into competency statements, or if similar, were collapsed. These competencies were validated with the original panel.

The IDECC system was searched for the same or similar competencies as those identified through the task analysis process. Where any similarity existed between the two--new competencies and IDECC competencies--the IDECC competency was used. This rationale fits into the project's stated objective of using the current IDECC system as a nucleus for this project.

Definition of Entrepreneur: The individual organizer of an economic venture with a high need for achievement, perceiving marketing opportunities, obtaining resources to meet the opportunities, initiating production and sales, controlling the management functions within an imaginative and realistic construct and accepting the assumption of risk for the sake of a profit. (Definition developed by Ervin A. Emery, Jr., R.A., entrepreneur project, IDECC.)

Within this definition, the current IDECC system contains over 95 percent of the competencies needed for an entrepreneur system. (See Appendix MM.)

The forty-one new competencies of entrepreneurship reflect the task analysis process. For each new competency and behavioral objective, one individual and one group activity was written. Pre-Posttests, handouts where needed, plus a learning manager's section have been developed.

The specific timeline and work breakdown structure for this objective is included in the appendix. (See Appendix NN.)

Panel members who participated in developing the task statements were:

Mr. Robert A. Good, Service Station, Hershey, PA, Owner.
Mr. Elliott S. Grayson, York Steak House System, Inc., Columbus, OH, Owner
Mr. William E. Haak, Haak Brothers, Inc., Department Store, Lebanon, PA, Owner
Mr. George B. Elayel, The Liberal Market, Inc., Food Store, Dayton, OH, Owner
Mr. John J. Jason, J. M. Jason, Inc., Variety Store, Canal Fulton, OH, Owner
Mr. Dick Whittaker, Host Enterprises, Inc., Hotel/Motel and Restaurant Lancaster, PA, General Manager of Sales
Mr. Bob Levinson, Steel Craft Mfg. Co., Hotel/Motel/Restaurant/Wholesaling enterprises, Cincinnati, OH, Owner
Mrs. Mary Maurer, Maurer Restaurant, Wernersville, PA, Owner
Mr. John W. James, The Kauffman-Littimer Co., Wholesaling, Columbus, OH,
Mr. Sidney Caplan, Harrisburg Textile Co., Wholesaling, Harrisburg, PA, Owner

It will be noted that the above ten names reflect the seven business areas of the IDECC system--Food Stores, Variety Stores, Department Stores, Restaurant, Hotel/Motel, Service Station, and Wholesaling. In this manner an across-the-board entrepreneur task list was developed, reflecting the common tasks to each of the seven IDECC business areas.

Task Analysis Process

The Center for Vocational Education, The Ohio State University, 1960 Kenny Road, Columbus, Ohio, 43210, has developed over the past five years, through federal grants, a five-volume description of procedures for constructing task inventories, surveying the task performance of occupations and analyzing survey data to aid curriculum planners and developers in determining the appropriate performance content for job training. These five volumes go under the title of Performance Content for Job Training and can be purchased from the Center.

The IDECC Board of Directors has mandated that the process contained in these volumes will constitute the accepted approach to task analysis for IDECC use. This report will not restate what is contained in these volumes; rather, the sequential steps used to evolve and validate task statements for the IDECC entrepreneur program will be delineated as recommended by the Center for Vocational Education, "Performance Content for Job Training" program.

Definition of a Task: A task is a meaningful unit of work activity, generally performed on the job by one worker within some limited period of time. It is a purposeful job-oriented activity of a worker.

Some Things That Are Not Tasks

1. Worker qualifications (such as intelligence, aptitude, knowledge, education, skill training and experience) are not tasks; nor are they any component of a task statement.

2. Receiving of instruction for the purpose of initial or entry job training is not a task unless actual useful work is performed during the training. The giving of instruction, when it is a part of a job assignment, is a task activity. Similarly, continuation training that is a routine part of the job to maintain a particular skill, is considered to be a task of the job.

3. Job responsibilities, position assignments and work goals are not tasks.

4. Responsibilities and functions of an agency, shop, team, or office are not tasks. Tasks are activities of people, not of organizations.

Procedural Steps of the Task Analysis Process

Step 1: Occupational Scope Identified

The scope of the entrepreneur project is to develop a competency based learning system for entrepreneurship for small business owners as this activity applies to businesses in marketing, distribution, and service.

This project defines a small business as one which is independently owned and operated and not dominant in its field of operations, where the owner is usually the manager, the capital is supplied, and the area of operations is mainly local. This definition of a small business is a combination of the Small Business Act passed by the United States Congress in 1953 and the Committee for Economic Development(CED).

The following is a narrative description of the scope of the occupation of entrepreneur (small business owner):

In general, the entrepreneur is the individual organizer of an economic venture with a high need for achievement, perceiving marketing opportunities, attaining resources to meet the opportunities, initiating production and sales, controlling the management functions within an imaginative and realistic construct and accepting the assumption of risks for the sake of a project.

The principles and practices which generally apply to the entrepreneur center around the following:

1. Marketing studies and analysis
2. Activities planning
3. Vigilant control of investment, merchandise, personnel, equipment, and buildings to insure maximum use for production, sales, and return on investment.
4. Adequate expense records
5. Thoughtful selection of merchandise and services.
6. Strategic location with particular reference to the market, taking into account resources and transportation of merchandise and services.
7. Sound policies, unalterable in general objective, but flexible and adjustable to meet obvious business expediencies.
8. Strong working relationships with suppliers
9. Judiciously controlled credit
10. Customer selection and market concentration
11. Skillfully selected personnel
12. A well-planned sales promotion program
13. Establishment of the proper business environment (climate or image) as related to the community within which the business operates.
14. Identifying and accepting social responsibility for the business' activities

An entrepreneur may be identified by such other titles as:

a. Owner
b. Small Business Owner
c. Owner Franchise
d. Owner-Manager
e. Partner Owner
f. Corporation Owner (Inc.)

Characteristics of successful entrepreneurs identified through a review of the research literature on the subject are:

1. High need for achievement (McClelland, 1969)
2. Hard work
3. Seek recognition (A. Hornaday and John Aboud)
4. Leaders (A. Hornaday and John Aboud)
5. Independent (A. Hornaday and John Aboud)
6. Ability to make decisions under uncertainty (Michael Palmer)
7. Ideas and dreams flow from his mind (an innovator)
8. Awareness of people and their ideas
9. Usually has technical training
10. Ability to conceptualize the venture strategy--idea to reality processing.

Performance situations to be considered by the entrepreneur center upon many settings and situations. The following are general areas of concern:

a. Geographical factors of the business venture, such as influence by coastal, inland, mountain, desert, cold weather, extreme heat and humidity, regional cultural characteristics, or urban/rural variations
b. Social, political, civic and agency interactions.
c. Unusual contingency situations of an emergency, unpredictable, or accidental nature; these place stress upon the entrepreneur's performance capability.
d. Problem performance situations.

The above narrative gives a brief summary of matters of concern in defining the scope of entrepreneurship addressed in this project. From the scope of the occupation of entrepreneurship, the next step of constructing the list of potential tasks was undertaken.

Step 2: Constructing the List of Potential Tasks

An initial listing of possible entrepreneur functions was constructed from available printed source material. (See Appendix QQ for a listing of text references used.)

In addition to a review of the literature, several current federally funded entrepreneur projects were reviewed. This was done to coordinate efforts between projects to avoid duplication of effort, to make possible modification of the project based upon valid data, and to open channels of communication. These projects were:

1. Ohio; #498AH60219, G00-76-03930 "B"; Dr. Lorraine Furtado, Ohio State University, Center for Vocational Education, 1960 Kenny Road, Columbus, OH, 43210, "Entrepreneurship for Postsecondary Institutions."

2. Virginia; #498AH60108, G00-76-03754 "A"; Dr.Barry Reese, Virginia Polytechnic Institute and State University Vocational and Technical Education, Blacksburg, VA 24061; "Developing Competency Based Individualized Instruction Modules for Owner Managers of Small Business Firms."

3. Arkansas; #498AH60090, G00-76-03753 "A"; Mr. Jim Walden, Entrepreneurship Director, University of Arkansas, Fayetteville, AR; "A Model for Vocational Education Program Development in Entrepreneurship."

Along with the above, the University of Minnesota, Division of Agribusiness, was contacted and their entrepreneur program was previewed.

Mr. Ed. Nelson, U.S. Office of Education, Health, Education, and Welfare, Division of Vocational Technical Education, Washington, DC, was kept informed as to the status of the project for the inclusion of entrepreneurship (small business ownership) tasks among listings to be added into the Distributive Education area.

To the knowledge of this writer, no prior task inventories have been developed for entrepreneurship. This is possibly the first such attempt. Therefore, this source of information was not available to

to the project.

The major work to develop the tasks lists came from the ten panel members listed above. Each individual kept, for one month, a diary listing for their business and those tasks done as a business owner as opposed to management. These lists were collapsed to sift out duplication. The list of tasks (131) was written in the format set forth in the "Performance Content for Job Training" program.

The original task lists from the Lucy Crawford study, A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education (Blacksburg: Virginia Polytechnic Institute, 1967), were reviewed for inclusion into the task listing. It was found that many of the Crawford management tasks were what the panel considered to be entrepreneur tasks, so a section in the survey was established entitled "Entrepreneur Management Tasks." What this amounts to is a re-validation of those managerial tasks in the Crawford study and an upgrading of them for possible use in an entrepreneur curriculum.

The end product--the survey--therefore consisted of two entrepreneur task statement listings. First, a general listing of entrepreneur tasks as the ten panel members view it. Then, a specific entrepreneur management task list for each of the seven IDECC business areas (Food Store, Hotel/Motel, Restaurant, Variety Store, Department Store, Service Station, and Wholesaling).

Pilot Test

Before the entrepreneur task list statements were put into final form, a pilot test with fifty entrepreneurs from the seven business areas of IDECC was conducted.

The process used for the pilot test was to hand-carry each list to the business owners. An explanation about the survey was given each person. They were asked to respond to the tasks, give background data, and give their opinions as to their likes or dislikes in regard to the statement and pilot survey format. The results were favorable towards the survey. They felt the survey related to entrepreneurship and that the task statements were tasks entrepreneurs used. No statistical data was developed on the pilot test; only informal observations were made. The pilot test, however, is included in the overall final data because it is a random subsample of the total sampled population.

From the pilot test, task statements were edited. From the edited task list,a final task listing was developed.

Step 3: Planning Survey Design and Analysis

The first phase of this step was to determine what results were to be sought. This was decided by the IDECC Board of Trustees, who stated that "criticality and frequency of task use are the two major criteria to use." In addition to the Board's criteria, the Director of IDECC, Dr. Casterline, felt that the location of where the learning took place was important. Further, the IDECC Board established that the "Performance Content for Job Training" technique from The Center for Vocational Education, The Ohio State University, would be used in the task analysis process. This program included the ten necessary questions to accomplish the above three result determinants. Questions number 10, 3, and 6 were used for task analysis determination. (Note: During the development of this project, The Center for Vocational Education revised its task

analysis format; therefore, in addition to the current cited process, prior publications from the Center must be reviewed to identify the questions and number changes.)

Question number 1 is "Task Occurrence" which asks which task activities you perform as an entrepreneur. It does this with the statement, "During the last year in your present position of entrepreneur, about how often have you been performing each activity?" (See Appendix PP for a complete description of this task question.)

Question number 3 is "Extent Task is Part of the Position" which asks how much each task is a part of your job as an entrepreneur. It does this with the statement "For each task statement in the List of Tasks, consider how significant a part of your position the task is." (See Appendix QQ for a complete description of this task question.)

Question number 6A is "Where Each Task Should be Learned." It does this with the statement, "From your total experience as an entrepreneur, judge where each task activity listed should be learned; that is, where should an entrepreneur make the main effort to learn what needs to be known about each task." (See Appendix RR for a complete description of this task question.)

The second phase of this step was to determine the survey design and its administration. The survey format can be previewed by looking in the appendix. Basically, it has a cover letter, title page, introduction and background information pages, statement of the question and instruction page, task statement pages divided into two sections (entrepreneurial tasks/entrepreneur management tasks) and, finally, a survey evaluation page.

Because returns from mailings of questionnaires usually are poor, 50% to 70%, this project hired people to hand carry each survey plus pick up the completed survey. A number (N) of 460 was needed (determined by the task analysis process) for a sufficient statistical base. The fact is that the administration process gave a 100% return for this project with an N of 460.

The third phase of this step was to process the survey data. The Center's program Performance Content for Job Training dated March 1977 was used. Volume 3 describes this process (pp. 61-87).

Preparation of Data. Each questionnaire booklet received was scanned for completeness and for compliance with directions prior to key punching. It was determined that all surveys would be used even though the respondents failed to follow completely the oral instructions of the survey carrier and the written questionnaire directions.

Data asked for falls into the following categories:

1. Task Occurrence

   This data lists each task, the number of entrepreneurs who perform the task and the percentage of those responding to the task who perform the task.

2. Summary of Tasks by Percent Performing

   This data gives a percentage range, the number of tasks and lists the task numbers which belong within the percentage range.

3. Extent Task is Part of the Job

   This data is identified by each task. For each task a mean, SD, and N is given. This is followed by the number of responses per response category (0, 1, 2, 3, 4, 5, 6, 7). Finally, the percent the task is part of the job is given, followed by the percent the task is a significant part of the job.

4. Learning Location

   This data is identified by each task. For each task the distribution of suggested learning sources is given. This is followed by the percentages for each learning source. The mode is the final column giving the single learning source for the task and the percentage. (P = prior; T = formal training program or shcool; S = on site; E = prior experience; O = other, respondents write in; N = nothing.)

5. Frequency of Task Performed

   This data is identified by each task. For each task the actual entrepreneur frequency is given as median along with the number reporting. This is followed by the distribution of entrepreneur frequency of task performance giving the per frequency in percentage of less than once a year and greater than once per week.

6. Task Relevance and Level of Development

   The primary purpose of the regression analysis here was to identify the minimum number of entrepreneurs which would significantly predict the task. The regression equation for this data is:

$$Y' = 1.50 + .67\ (Q3{:}\bar{X}) + .03\ (Q6{:}T\%)$$

The above six data asked for were done under the following requests:

1. Business area (7 different areas)
2. Collapsing the seven business areas for common result data

The raw data was developed for each business area along with the background information on the three questions.

Data requested were:

1. Frequency for each task
2. Cumulative frequency for each task
3. Percent
4. Cumulative percent

Step 4: Survey Results

Of the 131 "all job" task statements, ten were not selected for curriculum development. Numbers 5, 6, 9, 13, 18, 21, 22, 23, 24, and 26 show rejection (for specific task statements see Appendix LL for list of tasks). But, according to Volume 4 of the Performance Content for Job Training guides, each of these tasks was above the Y = 3.10 reject line (see p. 27, Volume 4) by a significant number. Therefore, all 131 task statements were considered in the writing of competencies.

On an individual IDECC business area basis, the following select-reject results appeared concerning the "entrepreneur" task statements:

	Select	Reject
1. Food Store	115	16
2. Hotel/Motel	130	1
3. Restaurant	131	0
4. Variety Store	131	0
5. Service Station	117	14
6. Department Store	131	0
7. Wholesaling	123	8

As noted above, the Management task statements would not be used to develop competencies because they are already in the IDECC system. These results are not reported; they are only shown in the computer data. (Note: All the management entrepreneur task statements were selected.)

Competency Statement Development Process

The entrepreneurial objective called for the writing of competencies from the task list. This process involved the following sequential steps:

1. The 131 task statements were grouped into areas. These areas are as follow:

   a. Initial and Continuing Entrepreneurial Functions and Operations
   b. Finance and Credit
   c. Professional Assistance

d. Customer Information Needs
e. Competition
f. Information Gathering Activities

2. Within the grouped task areas, those tasks with similar statements were collapsed. This was a combining effect of tasks to relieve the repetition and redundancy of competencies (See Appendix SS "Task Statements Combined to Make Competencies"). The combining of tasks resulted in 41 specific competencies. The breakdown by area is:

a. Initial and Continuing Entrepreneurial Functions and Operations
22 Competencies
b. Finance and Credit
12 Competencies
c. Professional Assistance
3 Competencies
d. Customer Information Needs
1 Competency
e. Competition
1 Competency
f. Information Gathering Activities
2 Competencies

3. The area (section) and task statement, once combined, were placed on a form for competency statement identification within levels of Knowledge, Attitude and Skill. What this says, then, is that all collapsed task statements, when placed within an area (section), were grouped for similarity. The competency statement then was rationalized according to three levels of learning (see Appendix TT for format of processing).

4. Once the competency was leveled from the task statement, behavioral objectives and learning activities were developed.

5. The competency statements were sent to the original ten panel members for validation.

Results: Little reaction was demonstrated by the panel members, so the competencies were accepted as stated.

Learning Activity Packages Development

Objective #5 of the project further states that learning activity packages for competencies which the panel judged as needed would be developed. The following steps identify this process:

1. Objectives to the competency levels were written using a panel of entrepreneur educators.

2. Learning activities were written to the leveled objectives. One individual and one group activity constitute this section.

3. Pre-test for each objective was developed.

4. Posttest for each objective was developed.

5. Handouts for each learning activity, when appropriate, were developed.

6. Learning manager's guide for the technique used in instruction was developed.

Pilot Test of the New Entrepreneurial IDECC Program

No pilot test for this portion of the project was conducted. The reason is that the Director of IDECC, who wrote the project, did not obtain permission from the stated pilot test site participant prior or during the development of the project. The research associate on the project attempted to obtain pilot test sites as stated in the project but was refused. Alternate sites on short notice were not available.

RESULTS

The overall end result from the project is the development of a competency based entrepreneur learning system through the IDECC system.

The adult distributive education entrepreneur instructor has at his/her disposal forty-one competencies with behavioral objectives, learning activities and pre-post tests from which to implement entrepreneur courses. The combination of these competencies along with the current IDECC entrepreneur management competencies gives a broad base for planning curriculum in entrepreneurship.

CONCLUSIONS

Accomplishments

1. Forty-one learning activities related to entrepreneurship through the task analysis process.
2. A partial task analysis process identified for skill development in entrepreneurship.
3. A process for competency statement development taking into account three areas of what a competency statement should be.
4. A definition of entrepreneurship which, if fully implemented, will identify specific areas of instruction for entrepreneurship.
5. Identification of principles and practices which generally apply to entrepreneurship.
6. Identification of characteristics of entrepreneurs through a review of literature.
7. Performance situations through which entrepreneurship centers.

What the project did not do was a comprehensive development of entrepreneurship from a society concept. Therefore, the total process is limited in scope to a task analysis approach. Also, a pilot test was not conducted using the material written for the reasons stated above.

RECOMMENDATIONS

The limited nature of this project precipitates the following recommendations:

1. A broader, more comprehensive definition of task analysis and competency statements is needed to work with.

It is the writer's opinion, given the guidelines of the project, that what was accomplished is in fact acceptable. However, the following in regard to defining what a task analysis is and what a competency statement is, is put forth to EXPAND AND CHALLENGE the reader of this report in these two areas.

Task Analysis: The breaking of a job down into tasks and into a list of elements for the purpose of describing the SKILL components of a competency.

Tasks are not the process of taking a task list or interviewing first-line supervisors and asking them to check, circle, or write down all the general skill or competency areas they or their subordinates or supervisors seem to lack. That is a need analysis. Further, no one task analysis process is appropriate from which to develop basic learning material. This stems from the fact of the definition of a competency. That is, a competency is the dynamic interplay of knowledge, understanding, skills, values, attitudes, and interest. Note that this definition does not limit a competency statement to three areas of development used in this project--knowledge, attitude, and skills--rather, a broad perspective of a competency is developed. Note also, that a task analysis is only concerned with SKILL identification which is ONE component of a competency. How does this project justify knowledge and attitudes in addition to skills through the task analysis process? The current IDECC process was followed from the Crawford study, which has been accepted. At the time of the Crawford study, not as much was known about competency development as today--ten years later. Therefore, this project has, through its research, expanded the Crawford process for competency development. Without the Crawford study, distributive education would not be the leader it is today, but new processes are available and should be used.

Finally, not to belabor the above, the research associate of this project can identify, in addition to task analysis for skills, at least five to ten other task analysis process which, within each, identifies with one or more of the above competency components. For example, Consumer

Research Techniques are used for "focus groups" which are a task analysis process to identify attitudes and interests of what people like or dislike.

From this brief discussion, it is recommended that several different approaches to task analysis be used to evolve and develop task statements from which competency statements can be written. Examples of other methods usable are the "Look and See Approach" (a spinoff from the time-and-motion study technique), the "Structure-of-Knowledge Approach" (centering on the type of learning that each task would require), the "Critical-Incident Approach" (which can be used to develop sophisticated performance-review instruments), the "Process/Decision Flow Chart Approach" (to organize jobs composed of decisional tasks), and the "Force-Field Analysis Approach to Task Analysis" (which is concerned with a change in behavior of an individual or a group).